What is claimed is:

1. An electrophotographic photoconductor, comprising:

an electroconductive substrate; and

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has a surface roughness Rz of 1.3 μm or less.

2. An electrophotographic photoconductor according to Claim 1, wherein the cross-linked surface layer has a surface roughness Rz of 1.0 μm or less.

3. An electrophotographic photoconductor according to Claim 1, wherein the cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure has a functional group selected from the group consisting of an acryloyloxy group and a methacryloyloxy group.

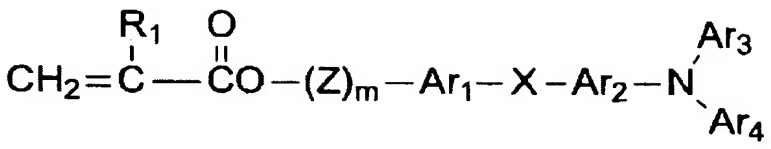
4. An electrophotographic photoconductor according to

Claim 1, wherein the cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure has a ratio (molecular weight/number of functional group) of molecular weight to the number of functional group of 250 or less.

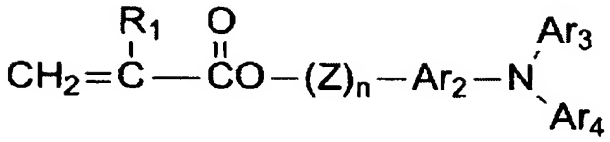
5. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure has a functional group selected from the group consisting of an acryloyloxy group and a methacryloyloxy group.

6. An electrophotographic photoconductor according to Claim 1, wherein the charge transporting structure of the cured mono-functional radical polymerizable compound having a charge transporting structure is a triarylamine structure.

7. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure is represented by one of the formulae (1) and (2):



(1)



(2)

wherein, R_1 represents a hydrogen atom, a halogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted, an aryl group which may be substituted, a cyano group, a nitro group, an alkoxy group, -$COOR_7$ (R_7 represents a hydrogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted or an aryl group which may be substituted), a halogenated carbonyl group or $CONR_8R_9$ (R_8 and R_9 represent a hydrogen atom, a halogen atom, an alkyl group which may be substituted, an aralkyl group which may be substituted or an aryl group which may be substituted, which may be identical or different);

Ar_1 and Ar_2 represent a substituted or unsubstituted arylene group, which may be identical or different;

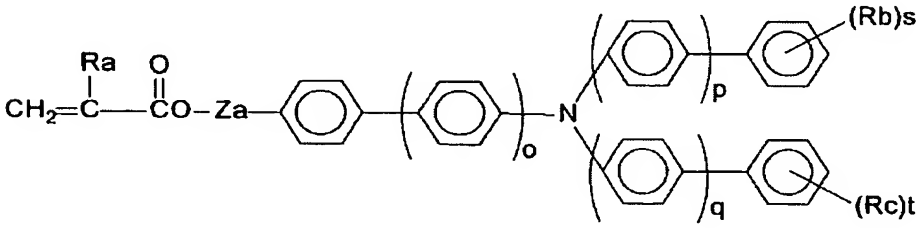
Ar_3 and Ar_4 represent a substituted or unsubstituted aryl group, which may be identical or different;

X represents a single bond, a substituted or unsubstituted alkylene group, a substituted or unsubstituted cycloalkylene group, a substituted or unsubstituted alkylene ether group, an oxygen atom, a sulfur atom or a vinylene group;

Z represents a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkylene ether group or an alkyleneoxycarbonyl group; and

"m" and "n" represent an integer of 0 to 3.

8. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure is represented by the following formula (3):



(3)

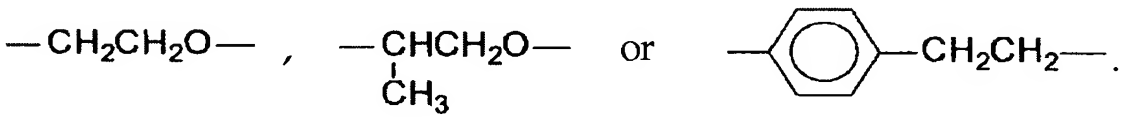
wherein, "o," "p" and "q" each represent an integer of 0 or 1;

Ra represents a hydrogen atom or a methyl group;

Rb and Rc represent an alkyl group having 1 to 6 carbon atoms, wherein each of Rb and Rc may be different when there are two or more Rb and Rc, respectively;

"s" and "t" represent an integer of 0 to 3; and

Za represents a single bond, a methylene group, an ethylene group,



9. An electrophotographic photoconductor according to Claim 1, wherein the cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure is 30% to 70% by weight, based on the total amount of the cross-linked surface layer.

10. An electrophotographic photoconductor according to Claim 1, wherein the cured mono-functional radical polymerizable compound having a charge transporting structure is 30% to 70% by weight, based on the total amount of the cross-linked surface layer.

11. An electrophotographic photoconductor according to Claim 1, wherein the photoconductive layer comprises:

a charge generation layer;

a charge transport layer; and

the cross-linked surface layer laminated on or above the electroconductive substrate in this order.

12. An electrophotographic photoconductor according to Claim 11, wherein the charge transport layer comprises a polymer charge transport material.

13. An electrophotographic photoconductor according to Claim 12, wherein the polymer charge transport material is a polycarbonate having a triarylamine structure in the main chain or side chain thereof.

14. An electrophotographic photoconductor according to Claim 1, wherein the cross-linked surface layer is cured by one of heating and light irradiation.

15. An electrophotographic photoconductor according to Claim 11, wherein the cross-linked surface layer has a thickness of from 1 μm to 10 μm.

16. An electrophotographic photoconductor according to Claim 11, wherein the thickness is from 2 μm to 8 μm.

17. An electrophotographic photoconductor according to Claim 11, wherein the cross-linked surface layer is insoluble in an organic solvent.

18. A process for forming an image, comprising:

charging an electrophotographic photoconductor;

exposing the electrophotographic photoconductor which is charged to a recording light so as to form an electrostatic latent image;

developing the electrostatic latent image by a developing agent so as to visualize the electrostatic latent image and form a toner image; and

transferring the toner image formed by developing onto a transfer material,

wherein the electrophotographic photoconductor comprises:

an electroconductive substrate;

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has a surface roughness Rz of 1.3 μm or less.

19. An apparatus for forming an image, comprising:

an electrophotographic photoconductor;

a charger to charge the electrophotographic photoconductor;

an exposer to expose the electrophotographic photoconductor charged by the charger to a recording light to form an electrostatic latent image;

a developing unit to supply a developing agent to the electrostatic latent image to visualize the electrostatic latent image and form a toner image; and

a transferring unit to transfer the toner image formed by the developing unit on a transfer material,

wherein the electrophotographic photoconductor comprises:

an electroconductive substrate;

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has a surface roughness Rz of 1.3 μm or less.

20. A process cartridge for an image forming apparatus, comprising:

an electrophotographic photoconductor; and

at least one selected from the group consisting of:

a charger to charge the electrophotographic photoconductor;

a developing unit to supply a developing agent to an electrostatic latent image formed by exposure on the electrophotographic photoconductor to visualize the electrostatic latent image and form a toner image;

a transferring unit to transfer the toner image formed by the developing unit on a transfer material;

a cleaning unit to remove toner remaining on the electrophotographic photoconductor after transferring; and

a discharging unit to remove the latent image on the photoconductor after transferring so as to form a monolithic structure ,

wherein the process cartridge is adapted to be attached to and detached from a main body of the image forming apparatus, and

the electrophotographic photoconductor comprises:

an electroconductive substrate;

a photoconductive layer on or above the electroconductive substrate, the photoconductive layer comprising:

a cross-linked surface layer which comprises:

a cured tri- or more-functional radical polymerizable monomer without having a charge transporting structure; and

a cured mono-functional radical polymerizable compound having a charge transporting structure,

wherein the cross-linked surface layer has a surface roughness Rz of 1.3 μm or less.